THE AMERICAN ARCHITECT AND BUILDING NEWS.

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AT last, before the fifteenth day of September has arrived, an offer of four hundred thousand dollars in cash has been made for the site of the Old South Meeting House. The Standing Committee of the church seem to be unwilling, even now that they are offered the sum they have from the first demanded, to let the property pass out of their hands; and seeking to assume the character of a protecting *genius loci*, are consulting counsel to determine what restrictions can be attached to the sale; for they, rather contradictorily, do not desire to have a religious society established there, and yet before all things wish to save the building from desecration.

THE citizens of West Philadelphia, who in April last held a public meeting to protest against the further erection of frame buildings in the vicinity of the Centennial grounds, have had their apprehensions justified by the fire of last Saturday. Now that an accident has happened, the authorities are "shutting the barn-door" by ordering that frame buildings erected contrary to law shall be torn down, and that no frame buildings shall be re-erected on the site of the fire. Some one is chargeable with carelessness for allowing frame buildings of from one to three stories high, — to be used, too, for booths, saloons, and restaurants, — to be built so near any of the exhibition buildings, but more particularly so near the Main Building, as to endanger them should such combustible structures once take fire. The rumor that the building was itself on fire, together with the sound of the water as the engine-streams were directed against the southern side of the Main Building to keep it from being ignited by the intense heat, caused a slight panic among exhibitors and spectators, which, thanks to the size of the building and the number of the exits, resulted in no mishaps. Some twenty small buildings were entirely destroyed, and three hotels were more or less injured. The loss is said to be about eighty thousand dollars.

THE possibility of a fire occurring on the grounds was of course foreseen and provided against at the time the buildings were erected. A brigade of over two hundred men, under the command of a captain detailed by the fire-commissioners of Philadelphia, was organized. Several steam fire engines were also detailed from the city department; and several stationary engines in the Main and Machinery Buildings were provided with hose. There are in the Main Building itself seventy-four hose-connections, while on the outside there are, serving this building alone, thirty-six water-plugs. These, with numerous chemical fire-extinguishers for use in extinguishing small fires in the inside of the building, were thought to provide ample guaranty against fire. But it has been demonstrated before this, that defective building-laws and city ordinances will render ineffective the best fire-departments in the world. It is a pity that the fire had not taken place on the day before, on which was to have taken place a competitive trial of fire-extinguishers, but at which the "Murphy" was the only one present; for no better opportunity of testing the effectiveness of the "Little Giant," the "Babcock," or the "Murphy Pneumatic Fire Extinguisher" could have been provided. Or on any one of the four previous days, the steam fire-engines could have momentarily interrupted their friendly competition with one another, only to resume it where the largest stream thrown the longest distance might do more actual good than demonstrating the power of engine.

THE Cincinnati Municipal Government seems to take delight in hampering the generous endeavors of the inhabitants to add to the beauty and attractiveness of the city. All manner of obstacles caused by the short-sightedness of its policy had to be overcome by Mr. Springer before he could receive the assurance that the proposed new Music Hall could be built. And now Mr. David Sinton, who proposed to erect at his own expense a Forum and Rostrum (see *American Architect* for April 15, and July 29) which should occupy, at one end of the square opposite the new Government Buildings, a position corresponding to that of the Probasco Fountain at the other, has been so harassed by the dilatoriness of the Municipal Government in taking the preliminary measures necessary to a commencement, that he has formally advised the Board of Public Works that he withdraws his offer. He is reported to have said in private, "My intentions were honestly to erect an enduring ornament, constructed of materials to resist the action of the elements. It would have cost me, perhaps, $250,000, but I think I have made a mistake in proposing to do it; and, as I am getting old, I don't want to be bothered any more about it, and so I have about concluded to let it go."

PUBLIC opinion and sympathy are entirely with Mr. Sinton; and resolutions have been passed by the Chamber of Commerce and by the Board of Trade, expressing their regret that he has found such a step necessary. These bodies have, moreover, appointed committees to inquire into the facts, and overcome, if possible, the obstacles that stand in the way of the prosecution of the enterprise. These are thought to be the unwillingness of the Consolidated Street Railroad Company to move its tracks so as to make room for the Forum, — but this seems little likely, as Mr. Sinton at the time of making his offer had the assurance of the president of the road, that no obstacle should be raised by that corporation: and the selfishness of abutting shopkeepers, who object to having their sidewalks narrowed; little attention need be paid to this, as the narrowing of the sidewalks would be an improvement, in that it would do away with the existing nuisance caused by the sidewalk-exhibitions of stoves, furniture, etc., which now so seriously incommode the pedestrian. It should be added that the Board of Public Works refused to record Mr. Sinton's communication, and that the Board of Aldermen has formally requested Mr. Sinton to reconsider the withdrawal of his offer. We are sorry if this enterprise is to be given up. It was an interesting one, and had the merit of being unlike any other that has been carried out in the country.

THE *Architect* records a case at law which illustrates one of the misunderstandings which continually arise from the want of common understanding of the real character of the relations and services on which an architect's fees are based. One Mr. Gainsford had employed the Messrs. Hadfield, architects, on some building; and the accounts had been settled for the work done, including extras, and payment made on the architects' certificate. But, when it came to paying

the architects, Mr. Gainsford refused to allow a commission on the cost of the extra work, alleging that it was work which did not require supervision; and this notwithstanding that the extra work had been inspected and passed by the architects, and payment made for it on their certificate as for the rest of the work. The court ruled that the architects were entitled to full commission; and their charges were paid. There is a very common aspiration among clients, to divide up an architect's services, and assign a proportionate fraction of his commission for every thing he does, and by a logical conversion to deduct for every thing that he does not see occasion to do. But the theory of his compensation is entirely different. It is conceivable that his duties should be so subdivided and tabulated, and the compensation for them so accurately prescribed, that in every case his charges should be graduated exactly by what he has done. Some people argue that this should be done; but we doubt if it would be found practicable, and there is not a shadow of warrant in the established custom for any such theory.

THE architect's charge is just as independent of the actual amount of labor he may be called upon to perform in each particular case, as the fee for a physician's visit or consultation. The theory that logically underlies the accepted custom is, that the duties of an architect are so complicated and various, the difficulty of the problems he meets so unequal, and the proportion of labor which he bestows on different parts of his work, or which they need, so fluctuating and indeterminate, that it is found to be best to fix a general rate of compensation, which shall in the long-run remunerate him fairly for his labors, the difficult and the easy together, and be a reasonable return on the part of the client for the benefit he receives. The amount of this compensation is open to general adjustment at any time: at present, usage fixes it at the usual five per cent for ordinary services; and, in the United States at least, it is held that it is none too much to include a percentage on every thing that goes into or is provided for a building while it is under his care, whether the things exact any attention from him or not. It is the custom to divide the fees into two or three parts, according to the stages at which, in practice, his work may naturally be dropped; as, according to the usage recorded in the schedules published by the English, French, and American Associations, so much for general drawings and specifications, so much for detail drawings, and so much for superintendence. This, however, is not so much a subdivision as an indication of stopping-places which are likely to occur in practice. The attempt to graduate an architect's fees according to the work which he may in every case perform is an attempt, like squaring the circle, to find a ratio between things that are incommensurable, or for which, at least as yet, no standard of co-measurement exists.

QUITE recently the Dean of Durham invited the bishop of the diocese to preach at the re-opening of the Cathedral after the completion of the alterations. This request the bishop declined, couching his reply in language at once dignified and reproachful. The bishop seemingly is a prelate who is impressed with the responsibility of his office, and esteems it more his duty to look after the individual welfare of the numerous parishes in his diocese, than to employ his time and talents, as is done by so many churchmen in England, in architectural and archæological studies, which generally lead to undertaking the restoration of the cathedral or church of which the reverend student is the incumbent. The bishop does not object to any necessary repairs, or reasonable alterations; but he says, "All this had been already accomplished, at a considerable cost, before the recent alterations were commenced." Church funds have been used on the cathedral, to the neglect of other buildings and parishes in the diocese. "Thus," says the bishop, "to take but one instance, you look down from the Cathedral on the parish of St. Oswald's, in the patronage of the Chapter, in which two new churches are urgently needed, one of which, at least, might have been built for the sum now expended on an Early English screen and an Italian pavement, hardly in harmony with the simple grandeur of the Norman edifice." He closes his letter of refusal by expressing his interest in the Cathedral, while he says, "I cannot give my countenance to an expenditure of church funds which, in my judgment, has been unwise and wasteful."

ADMIRERS of Paris have for a good while seen an eyesore in the incompleteness of the Avenue de l'Opera, which was begun ten years ago to connect the Place de l'Opera and the Palais Royal, though under a name that smacked too strongly of the Empire to be retained after its downfall; but which stopped abruptly after advancing as far as the Rue Louis le Grand at the Boulevard end, and the Rue St. Anne at the other. Such admirers will be glad to learn that the completion of the avenue is now taken up in earnest. The municipal council has approved a series of bills of sale from the proprietors of the land and buildings through which the avenue will pass, and has appropriated a million francs for the expenses of constructing, lighting, and ornamenting it, and half a million for sewerage and water-pipes.

IN the current numbers of the English architectural journals, there is very little of strictly architectural interest, while a very large portion of their space is taken up by reports of the "Cornwall Congress of the British Archæological Association." Besides this, and "Saracenic Architecture in India," there is in the *Builder* very little else that is either important or interesting. A woodcut of the Tower of Hassan, Rabat, Morocco, is the most interesting of the two illustrations. This tower was built by the same architect as was the Giralda at Seville, and the Koutoubyn Tower in the city of Morocco, — the famous Al-Geber from whom, according to some, the name of the science of algebra is derived. In the *Building News*, the tenor of "The Seventeenth and Nineteenth Century Revivals" may be understood from the following quotation: "'Queen Anne' was never any thing but skin deep, — a superficial garb; its very ornaments are peculiarly superficial, belonging to the wall, not to the structure." "Dilapidations" cites several cases from Mr. Grady's epitome on the "Law of Fixtures." "Historic Art Studies," to which belongs a double-page illustration, treats of Albert Dürer and the German painters of the fifteenth century. In the *Architect*, "Color for Country Architecture" lays stress upon the necessity of adapting the coloring of a country-house to that of the surrounding landscape. The selfishness of landlords in erecting ten or more storied buildings, to the prejudice of the sanitary condition of their immediate neighbors, and the safety of the occupants in case of a fire, is treated of in "From the House-Top." A legal article, "The Right of Support for Land and Buildings," is of value to Americans only in so far as it is based on common and not statute law.

BUILDING IN VIENNA. — II.

VIENNA, like other German cities, suffers in its modern architecture from not having decided in what style it shall build. It tries all the styles that are used in modern building, and the skill of its designers secures a good deal of elegance in the styles; but it settles down to none of them, although the Italian Renaissance which ruled in the old work is rather predominant in the new. The modern architecture of Vienna therefore has in its graver way something of the indecision, though not flightiness, which characterizes the

architecture of Munich. "There are at present," says Mr. Derby, "in course of erection in that city, an Academy of the Fine Arts, a Town Hall of four hundred feet front, two large Museums, a Parliament House, and a building of vast extent to contain all the Faculties of the University. The styles of these buildings are all different. The Renaissance, Gothic, Greek, and Roman architectures are all to be represented in their purity; and each building is intrusted to a master who has made one of these schools his specialty." We have already noticed the eclectic character of the new Opera-House, which is rather a loose combination of French and Italian Renaissance with a dash of Gothic in the exterior, the Italian however predominating, so that on the whole it typifies fairly enough the general condition of Viennese architecture. The new Town Hall is to be built in the Italian Gothic. The Academy of the Fine Arts, just finished or nearly finished, is in Italian Renaissance. In the new churches, German Gothic prevails; and the favorite example is the new Votiv-Kirche, an elaborate church, which, with all its richness and refinement of detail, lacks the unconventional ease and "swing" without which Gothic architecture is never really interesting.

The Viennese are rich in building-materials, of which they do not make as much use as they might. They have a great many free-working sandstones, of a variety of warm tints and different degrees of hardness, within easy reach of the city; and granite, marble, and Istrian stone are supplied by various parts of their dominions. Gothic churches are substantially built of sandstone, and a few of the most expensive buildings are faced with it; but far the greater number of them here, as in other German cities whose poverty in building-materials gives a better excuse for it, are of brick stuccoed. They have a great supply of hard, serviceable brick. Some of it is used for facing, and with it they have latterly adopted moulded brick; and a good deal of terra-cotta is used in exterior work; but the brick-faced work, or *Ziegel Rohbau* (raw brick-work) as they call it, is a modern fashion, and the old tradition of plastered brick-work prevails. The bricks, which are larger than ours (being eleven inches long, five and a quarter wide, and two and a half thick), are laid up with wide joints, not flushed, but left open on the face to give a key for the stucco, and roughly corbelled out to the shape of the pilasters, string-courses, archivolts, etc. The cement-mortar of which the stucco is made is dashed, not laid, upon the brick, quickly floated, and the mouldings run with a templet, as in common plaster-work. The brick is of course wet down before plastering; and, when the stucco is on, it is sprinkled with a hose at intervals for several days. All this work is done by the masons, and not by a separate class of workmen as with us. A great use is made of slabs and ornamental forms moulded or cast in cement; and sometimes, as in the new theatre at Pesth, a good part of the figure-sculpture of the exterior is cast in cement. In the climate of Vienna, this work is found sufficiently durable.

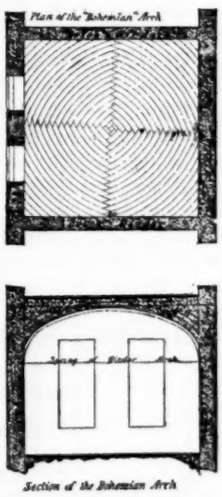
Thorough building is the rule in Vienna, and the building-laws are quite stringent. No building can be more than four stories above the ground-floor, or than seventy-eight feet from sidewalk to cornice. The main walls must be eighteen inches thick in the third and fourth stories (fourth and fifth according to our way of reckoning) and to the top; two feet in the first and second stories, two and a half feet for the ground-floor, and three feet at least in the cellar. Chimney-flues are carried in a middle wall which must be two feet thick, except in the upper story, in order to give six inches bearing for the floor-joists, and a foot of brick between them. Party-walls must be at least a foot on each side the party-line. Common partitions are of a single brick, say, six inches, and are carried on iron girders when they need support.

Stairs must be fire-proof from cellar to attic, enclosed in a well of masonry carried up to the under side of the roof, and with an attic door of iron. They are built, usually, of blocks of stone or marble, sometimes of cement, embedded in a wall at one end, with a balustrade of iron or stone. A quaint provision requires that the rails shall be guarded with knobs at every three feet to prevent children from sliding down. Principal corridors must be at least four feet wide, and walled and vaulted in masonry. Staircases which are liable to be crowded by an ascending or descending audience, as in theatres, must be carried on a ramping brick vault between two solid walls of masonry.

Floors are seldom built of iron; but pains is taken to make them substantial, and to lessen their liability to burning. When the cellars or basements are to be used for stables or workshops, or for storage of combustibles, the ground floor must be vaulted in brick: otherwise it is common to lay these floors of solid timber close together and treenailed, covered with four inches of pugging of old mortar or other incombustible material, on which the flooring is laid. The floor of the attic is always laid solid in this way, and must be covered with brick laid in cement as a defence in case the roof takes fire. The garrets or attics, we have said, cannot be used for chambers or living-rooms, but only for storage. They must be divided into lengths of not over forty-five feet by fire-walls, which must run up through the roof, and be provided with iron doors. Every chimney-flue must be accessible through an iron door three feet above the attic floor. Intermediate floors are often built of floor-joists set on edge as we set them, but not more than twelve inches apart, and always with four inches of pugging under the upper flooring. It is not uncommon to carry the ceiling below on an independent tier of light joist, that it may not be cracked by jarring from the floor above.

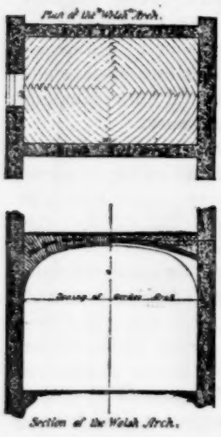
Wooden partitions are not used except in very inferior buildings; but they are allowed if they are properly plastered on both sides. Partitions between adjoining suites of apartments, however, must always be of brick, and not less than twelve inches thick.

The system of vaulted floors, called *Platzel-Gewölbe*, in use in Vienna, and peculiar to Austria, is worth describing. The space to be floored is divided into compartments or cells not larger than twenty feet square by arched girders of brick-work. Reveals are left on the sides of the girders to give a proper footing at the spring of the vaultings; and grooves are cut in the face of the walls where they abut, for the same purposes. The vaults are built by the eye alone, without any centering whatever, and are begun simultaneously in all the four angles of the apartment. Flat arches are built across these angles, like squinches, in successive rings, side by side, which of course widen as they recede from the angles, and rise slightly toward the middle of the compartment, forming a kind of pendentives, till they meet in the centres of the sides.



Half the space is thus vaulted with a series of arches, each self-supported, abutting against the walls and girders, and enclosing an open square whose angles are tangent to the sides of the original square at their centres. The planes of these rings are not quite vertical, but incline outwards at the crown toward the angles of the compartment, so as to give the requisite rise of the vault towards the middle, and keep the joints normal to the soffit. The inclined sides of these rings now form the necessary skewbacks for other

rings that are built within them, which, no longer reaching to the walls and girders, must abut upon each other, and, continually diminishing, close at last in the centre of the cell. This kind of vault is called the Bohemian vault, and is only used where the cells are square or nearly so. Its section is a flat semi-ellipse, or rather semi-oval, the arches being almost tangent to the walls at their springing. When the compartments are sufficiently narrow, — not over ten or twelve feet, — another kind of vault is used, called the Welsh vault, which may be extended over an oblong of twenty feet long or more. The Welsh vault differs from the Bohemian in being segmental in section along both axes, so that when square in plan it is a spherical surface. It is flatter than the other, having a rise of only half an inch to the foot, and cannot be so strong; but it is probably easier to construct, and is in common use for halls and corridors that are narrow enough for it. These vaultings are only a single course (say six inches) in thickness; but the Bohemian vault is usually backed on the flanks for a considerable height with one or two additional courses, which is desirable on account of the well-known tendency of an elliptical arch to rise at the haunches under pressure at the crown.



The roofs of the Viennese buildings must be covered either with tile, slate, or metal. Wooden cornices are forbidden. Balconies and bay-windows must be at least nine feet clear above the sidewalk, and an equal distance from any neighbor's house. They cannot project more than four feet, nor be wider than one window with its accompanying pier. They require a special permit, and are not allowed at all in a street less than forty-eight feet wide. It is not strange, perhaps, that they do not prevail in Vienna. No basement can be inhabited unless it rises at least four and a half feet above the sidewalk; and no story in any house can be less than nine feet in the clear. Main stairways cannot be less than three and a half feet wide; the rise of the stairs cannot be more than six inches, nor their tread less than eleven. It is the duty of the Inspector of Buildings to watch all work that is going on, and stop it wherever bad material is employed, or the building-laws infringed; and before a building can be occupied it must be approved as being not only properly constructed, but perfectly dry. The Government extends its supervision to the design as well as the construction of buildings. Plans, sections, and elevations must be filed in the office of the Building Commissioner, and approved by him. No deviation from these is allowed without special permission; and such designs as are thought positively objectionable are rejected.

THE ILLUSTRATIONS.

A HOUSE ON MARYLAND AVENUE, BALTIMORE, MD. MR. J. B. N. WYATT, ARCHITECT.

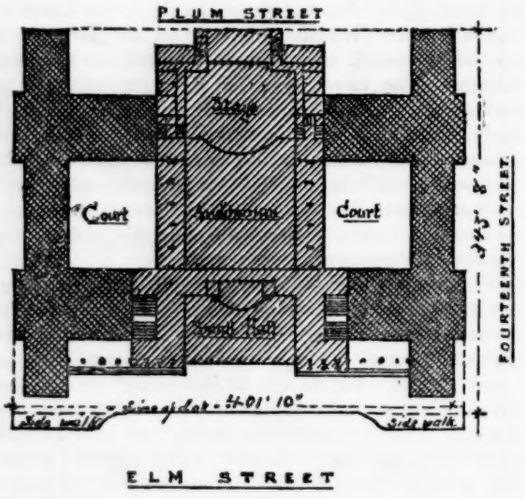
THIS house is built of Baltimore brick, laid in black mortar, with Ohio bluestone for arch springers and copings; black brick and herringbone work marking the principal horizontal lines. Tiles of subdued color are used over the main entrance and on the bay-window of the ground floor. The interior finish of the first and second floors is of yellow pine, rubbed down in oil and shellac; the walls left in "sand-finish," for frescoing. The house covers an area measuring twenty-three by eighty feet.

DESIGN FOR THE CINCINNATI MUSIC HALL, CINCINNATI, O. MR. A. F. OAKEY, ARCHITECT.

The small hall is designed in accordance with what the author believes to be the true principles of acoustics (see *American Architect* for April 29), while in the main hall a compromise between the demands of acoustic laws, and the uses to which the hall is occasionally to be put as an exhibition building, has been effected.

DESIGN FOR THE PROPOSED MUSIC HALL AT CINCINNATI. MESSRS. WARE AND VAN BRUNT, ARCHITECTS.

THIS design was made at the request of the Cincinnati Music Hall Association. Their instructions required a hall for concerts and oratorios, capable of holding 5,000 persons, so arranged as to be used in connection with adjoining buildings for fairs or exhibitions. The ground to be covered by the combined structures

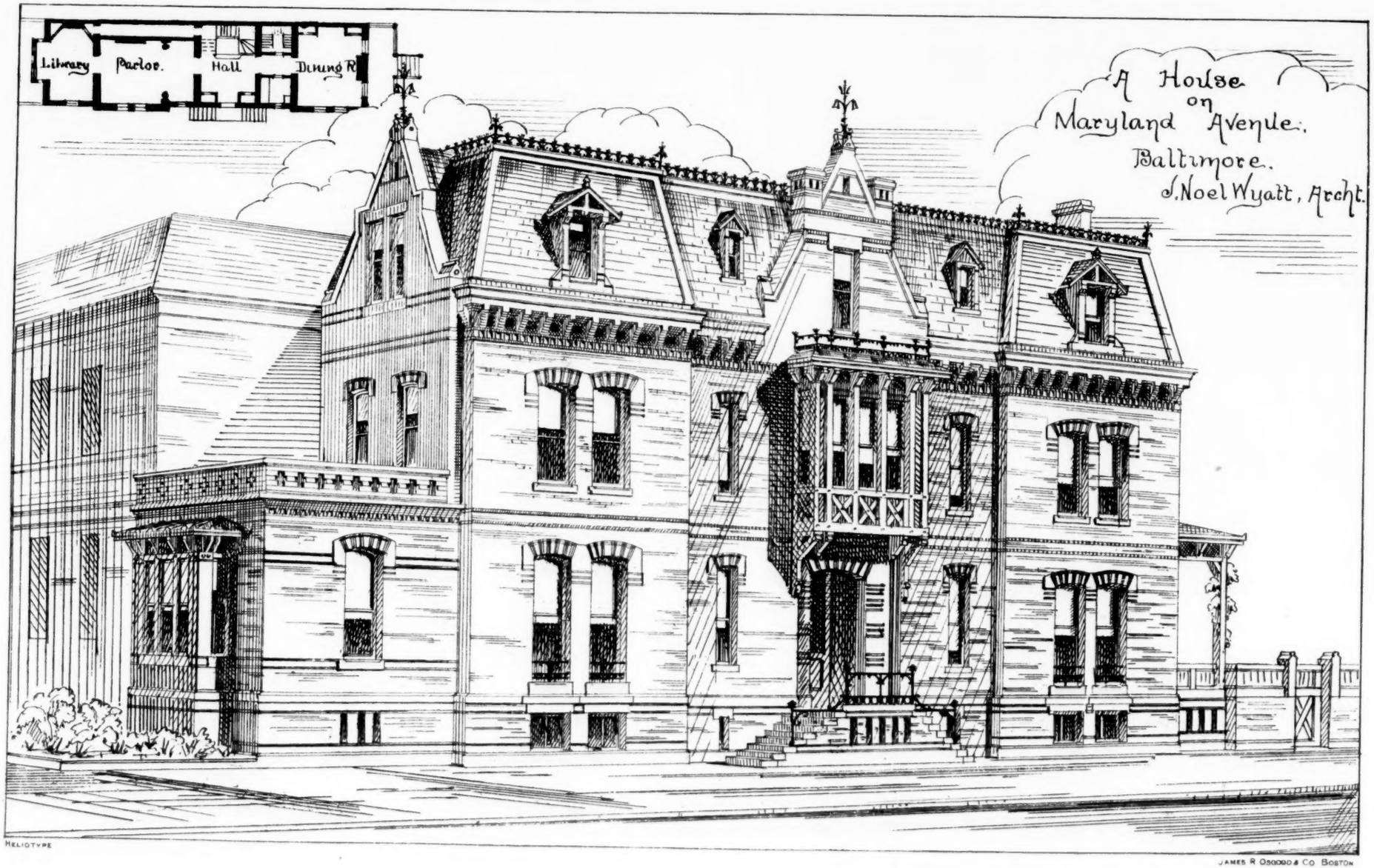


measured 401 by 344 feet. The scheme here shown gives seats for 2,093 on the floor, 1,360 in the first balcony, 600 in the second balcony, and 1,046 in the gallery opposite the stage; making 5,109 in all. There are forty-seven exits from the hall into the corridors; and the 3,000 occupants of the gallery and balconies reach the street by two straight staircases forty feet wide, without coming in contact with the 2,000 who have seats on the floor. The whole building could probably be emptied in from eight to ten minutes. There are covered porches for persons waiting for carriages. The large piers in the main corridors serve to give standing-room to persons waiting for their friends in the audience. The ticket-offices are under the main stairways; but persons purchasing tickets for the upper part of the house can gain their seats without returning to the foot of the stairs, by passing up adjoining staircases in the exhibition building, as far as the first landing of the main flight. There are cross-passages from one side to the other on the ground-floor, and on the third floor under the great gallery opposite the stage. In case of alarm, there is direct access to the galleries of the exhibition buildings adjacent. The hall is lighted in the day-time by fifteen lunettes, fourteen feet in diameter, at the top of the side and end walls, and by skylights over the stage; in the night, by rows of gas-jets running along the main cornice, and by sun-burners or some equivalent contrivance under these skylights. There are four large ventilating-towers over the staircases, communicating with perforated panels over the side of the great gallery, and with the lunettes at the back of the stage. By removing the seats, not only the ground-floor but the gallery and balconies would afford admirable exhibition space for certain classes of articles, in case the adjoining buildings proved insufficient.

In the scheme here presented, it has been attempted to embody the various precautions that science has suggested, or experience approved, in regard to the acoustic properties of buildings, in the belief that, though it is not at present practicable to make sure that a building shall be exceptionally good in this respect, it is possible to make sure that it shall not be bad. Seven principal points have come up for consideration: —

1. In consideration of the tendency of sound to rise, and to spread in rising, which, however it may be explained, is an unmistakable phenomenon, the longitudinal section of the auditorium is, as nearly as may be, that here shown; the area of the floor being 100 by 120 feet, while that of the upper part of the hall is 120 by 200 feet. The seats are made to rise as steeply as possible.

2. The seats for the chorus also rise steeply, and directly face the audience, thus securing the best utterance of the sound, and



HELIOTYPE

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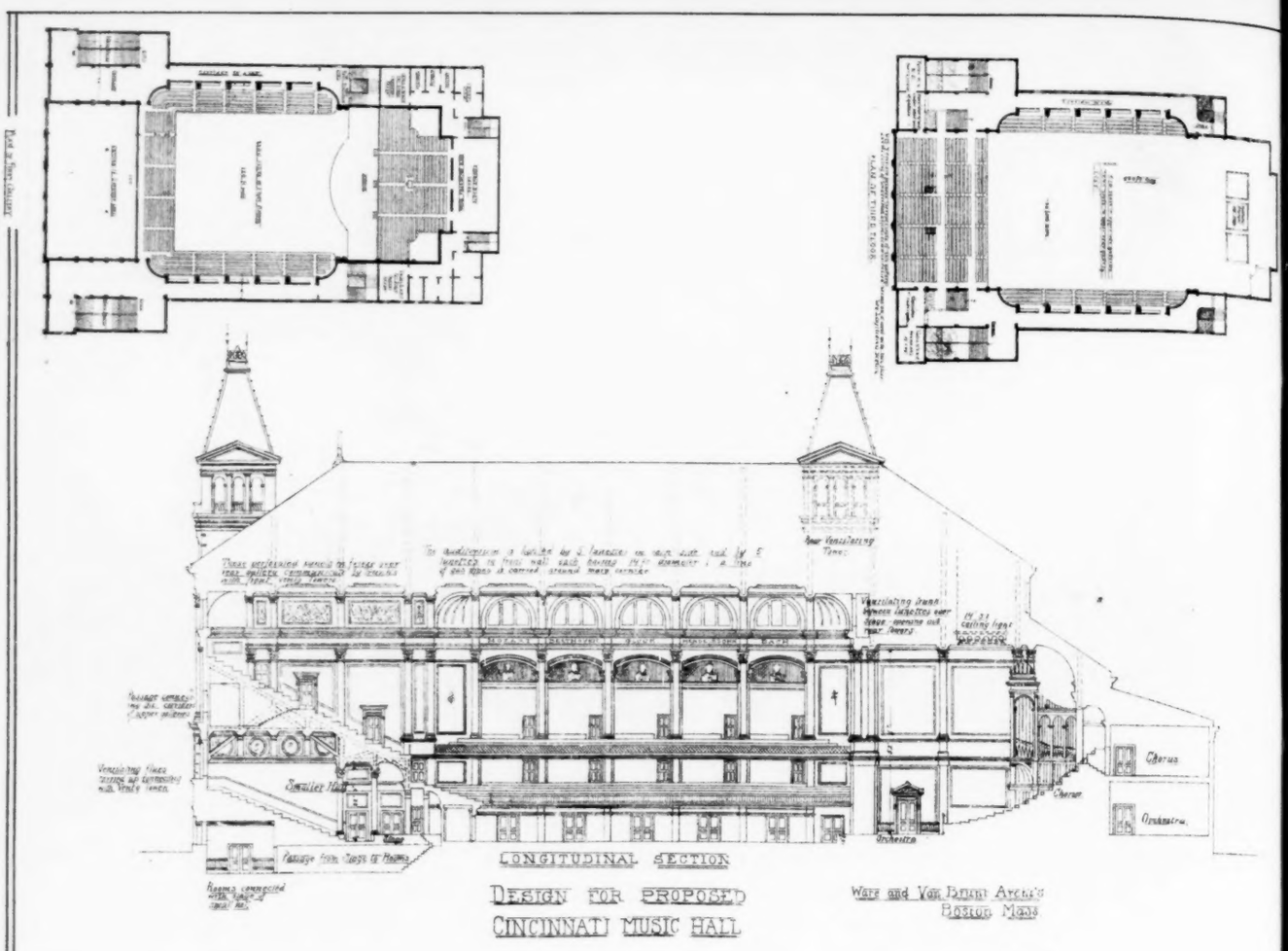
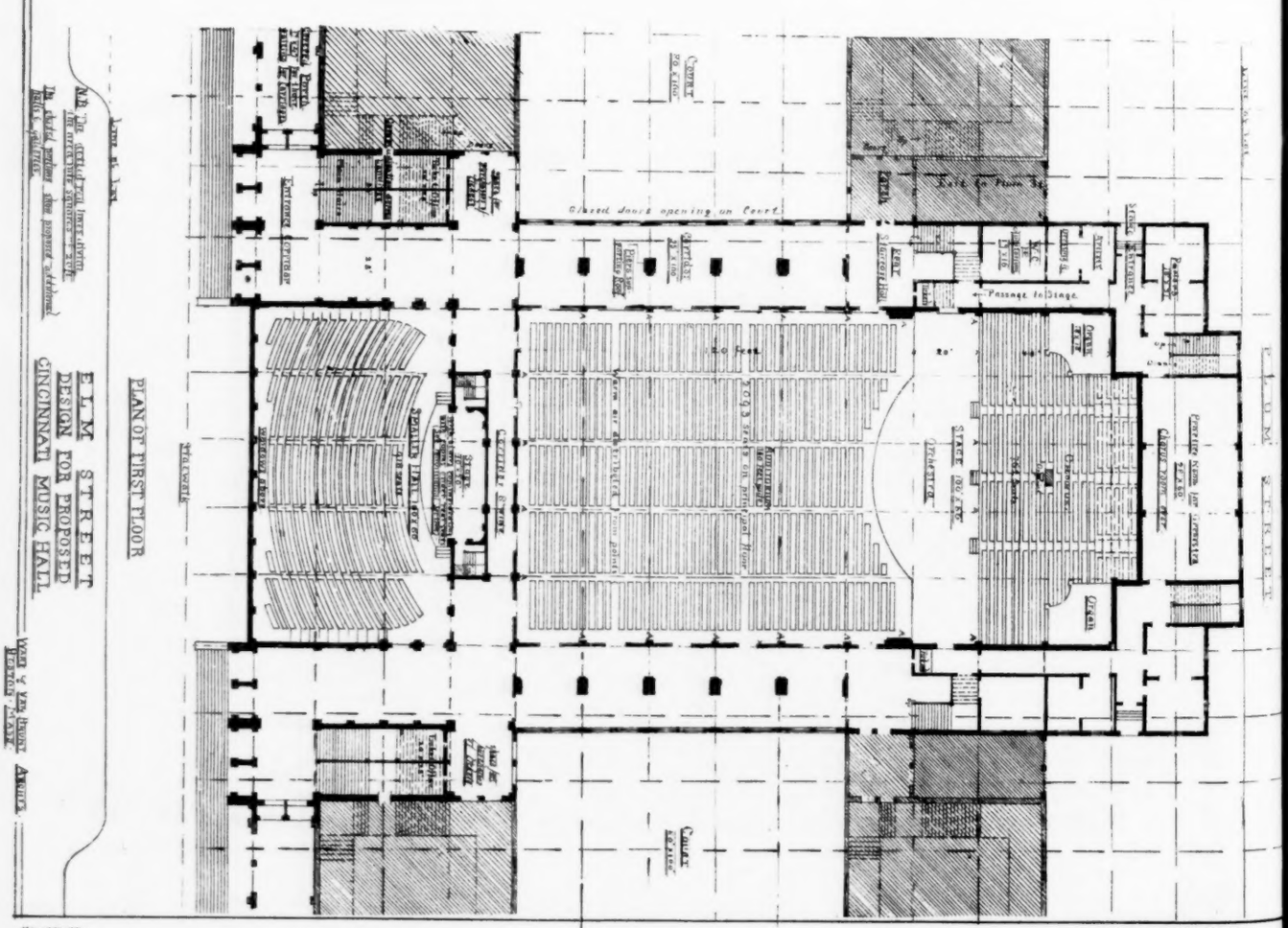


LONGITUDINAL SECTION

DESIGN FOR PROPOSED
CINCINNATI MUSIC HALL

Ware and Van Brunt Archts
Boston Mass


ELM STREET
Glazed doors opening on Court
Passage to Stage
Orchestra
Stage
Green Room
Ladies Parlor
Gentlemen Parlor
Chorus Room
Organ
Main Entrance
Vestibule
Cloak Room
Ticket Office
Janitor
Engineer
Elevator
Passage from Stage to Hall
Passage from Stage to Green Room
Passage from Stage to Chorus Room
Passage from Stage to Organ
Passage from Stage to Orchestra
Passage from Stage to Ladies Parlor
Passage from Stage to Gentlemen Parlor
Passage from Stage to Engineer
Passage from Stage to Janitor
Passage from Stage to Elevator
Passage from Stage to Ticket Office
Passage from Stage to Cloak Room
Passage from Stage to Main Entrance
Passage from Stage to Vestibule
Passage from Stage to Orchestra
Passage from Stage to Chorus Room
Passage from Stage to Organ
Passage from Stage to Ladies Parlor
Passage from Stage to Gentlemen Parlor
Passage from Stage to Engineer
Passage from Stage to Janitor
Passage from Stage to Elevator
Passage from Stage to Ticket Office
Passage from Stage to Cloak Room
Passage from Stage to Main Entrance
Passage from Stage to Vestibule

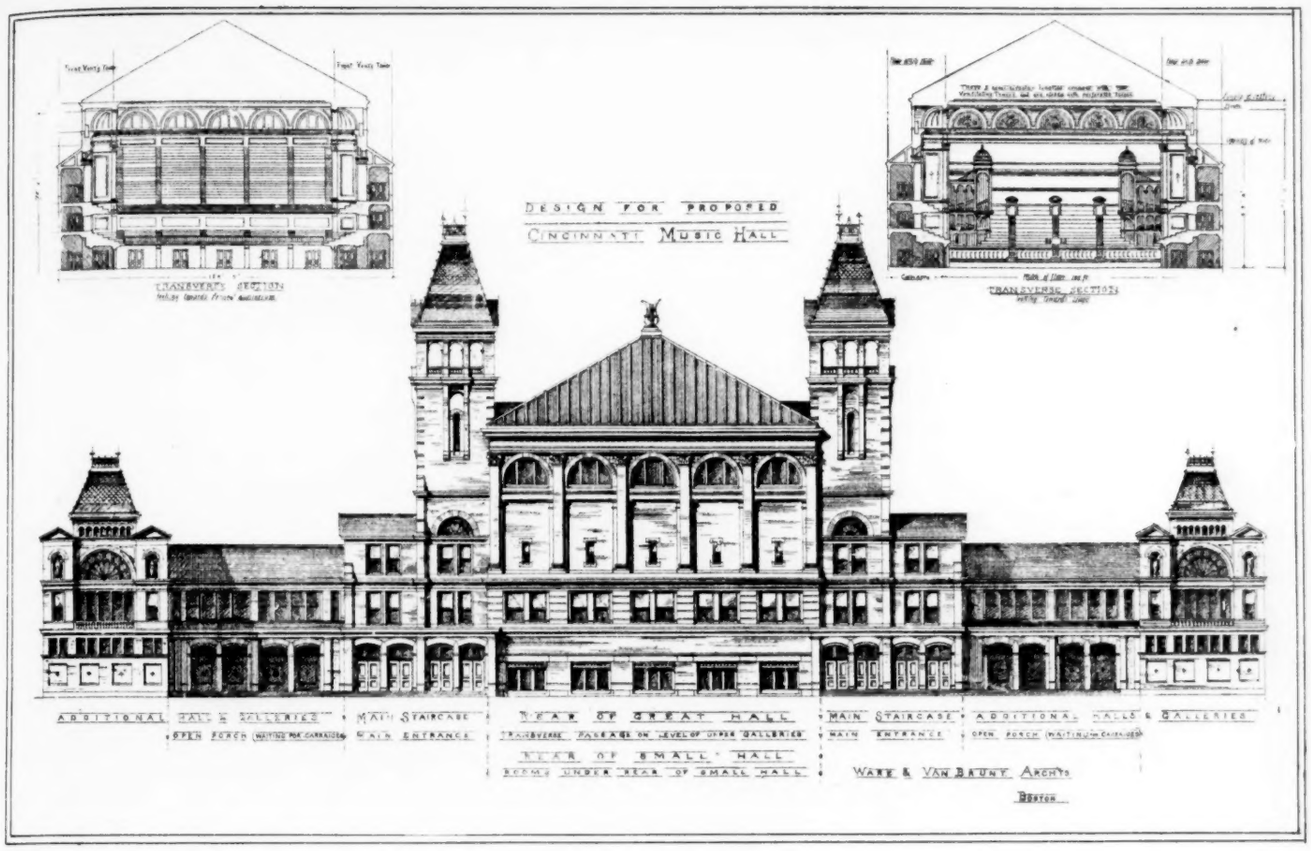
PLAN OF FIRST FLOOR

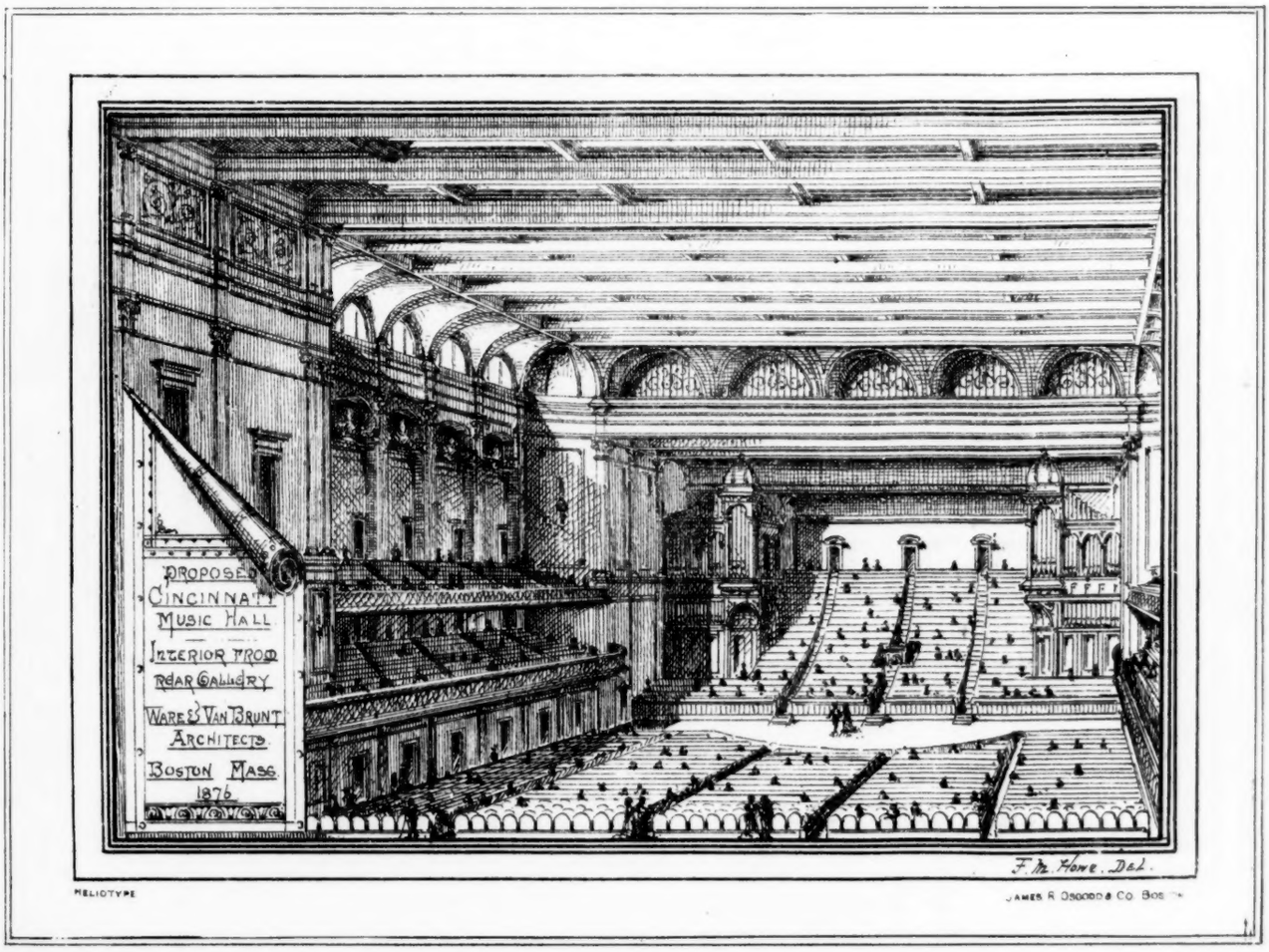
ELM STREET
DESIGN FOR PROPOSED
CINCINNATI MUSIC HALL

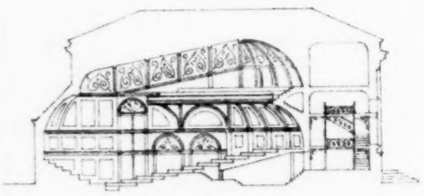
WARE & VAN BRUNT
BOSTON MASS.
ARCHTS.

MELIOTYPE

JAMES R. OSGOOD & CO. BOSTON

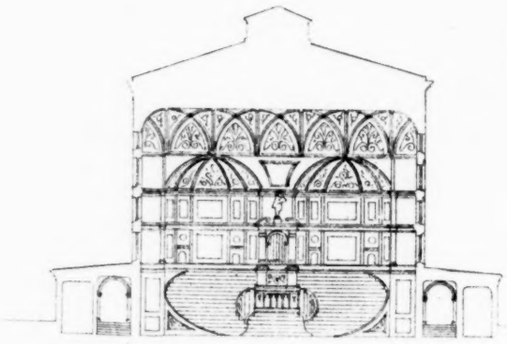

DESIGN FOR PROPOSED
CINCINNATI MUSIC HALL
TRANSVERSE SECTION
TRANSVERSE SECTION
ADDITIONAL HALLS & GALLERIES
OPEN PORCH (WAITING FOR CARRIAGES)
MAIN STAIRCASE
MAIN ENTRANCE
REAR OF GREAT HALL
TRANSVERSE PASSAGE ON LEVEL OF UPPER GALLERIES
REAR OF SMALL HALL
ROOMS UNDER REAR OF SMALL HALL
MAIN STAIRCASE
MAIN ENTRANCE
ADDITIONAL HALLS & GALLERIES
OPEN PORCH (WAITING FOR CARRIAGES)
WARE & VAN BRUNT, Archts
BOSTON


PROPOSED
CINCINNATI
MUSIC HALL
INTERIOR FROM
REAR GALLERY
WARE & VAN BRUNT
ARCHITECTS
BOSTON MASS.
1876
F. M. Howe. Del.
HELIOTYPE
JAMES R. OSGOOD & CO. BOS

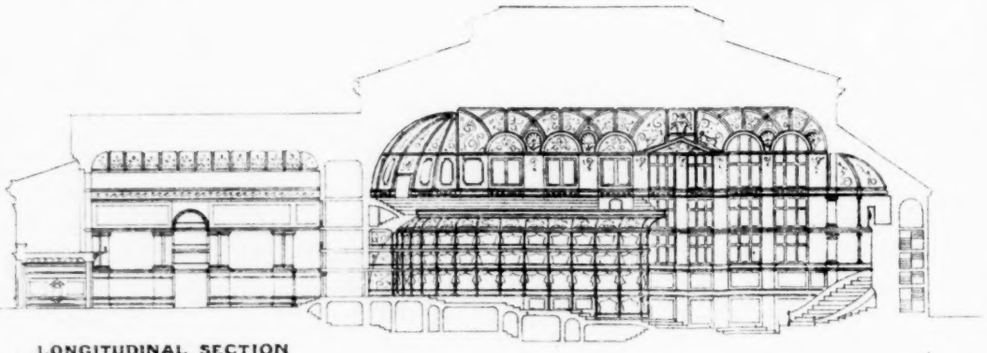


LONGITUDINAL SECTION

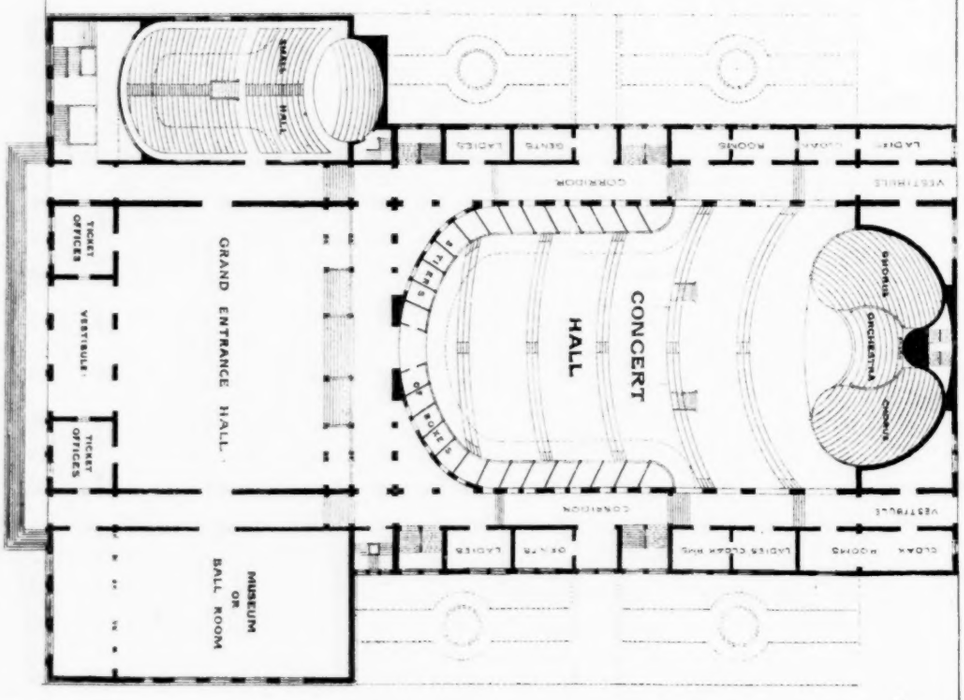
SMALL HALL



CROSS SECTION LARGE HALL



LONGITUDINAL SECTION



HELIOTYPE

JAMES R. OSGOOD & CO. BOSTON

THE PROPOSED CINCINNATI MUSIC HALL.

A F OAKEY, ARCH. N.Y.

avoiding the inequality of effect on different sides of the house, which is inevitable when different parts of the chorus face different ways. The organ is separated into two parts, and set in the corners, experience having shown that no disadvantage arises from

this. The keyboard is in the middle of the chorus ; the organist has his back to the conductor, as he should.

3. The wall behind the chorus and organ is plastered on the solid brick, thus giving the utmost advantage of a simultaneous echo.

4. The other walls and ceiling are plastered on furrings, so as to give an absorbent surface, and prevent disturbing echoes. Experience seems to show that the resonant surface of thin pine wood, as at Vignola's Theatre in Parma, forms the best material for a music-room. This would be unsafe for the walls; but varnished pine is suggested for the ceiling, in lieu of plaster-work.

5. The chief reliance against disturbing echoes is the breaking up of the walls and ceiling by piers and cross-beams. The balcony doors are so arranged that these piers do not intercept the view from any of the seats.

6. It is undoubtedly favorable for sound, to have the air homogeneous and free from currents. This is provided for by the uniform distribution of heating, lighting, and ventilating apparatus, all over the hall. So far as any currents exist, they are favorable, passing from the stage up back over the gallery.

7. The various dimensions of this hall are multiples of twenty feet. This adjustment is here adopted from purely architectural considerations ; and there is no reason to suppose that it would have any influence on the acoustic properties of the room, one way or another. But as a similar disposition was adopted in the Boston Music Hall, whose main dimensions are multiples of thirteen feet, and as a notion has prevailed, and has been recently revived, that this is the secret of its acoustic success, it is perhaps worth pointing out, that, if there were any advantage in this arrangement, the design under consideration would possess it.

Beneath the gallery is a small hall, with ante-rooms, capable of containing about a thousand persons. Its longitudinal section is similar to that of the large hall.

GRAVE-STONES: A FEW HINTS ON THEIR ARCHITECTURE AND USE.

THE question of suitable stones, in the form of monuments, tombs, or tablets, commemorative of those who have left us, is one that, ever since the days when the ashes of the dead were inurned and placed over the library-case or study-shelf, has been the subject of more or less thought and more or less discussion. Through the eighteen centuries since the establishment of the Christian Church, and since the discontinuance of cremation, there have been all sorts of mortuary tokens of remembrance erected, — good, bad, and indifferent; costing enormous sums, such as the tombs lining the Via Appia, near Rome, or with but little spent on them, as are seen over the graves of many a village Hampden in our country churchyards : they have been reared in cemeteries, in crypts, in cities, by the roadside, and even in the very churches themselves. In the catacombs we find what, I suppose, were the simplest ever executed. The persecuted Christians of those days had no money wherewith to erect large and handsome structures over those who had departed from a well-spent life ; but they buried them as best they were able, in holes bored in the walls of their subterranean abodes : and thus they had them always near, in a decaying body, as well as in — so the dogmas of the Church taught them — an immortal spirit. Some of these tombs, if they may be so called, are very interesting on account of the insight they give into the faith of those early ages, although, what with the wear of years and the lack of proper instruments in their engraving, the inscriptions frequently can with the utmost difficulty be deciphered, sometimes not at all. Often there is nothing further than the sacred monogram : then, again, a fish or two is rudely carved ; and maybe some incident from the life of the one therein laid is incised, in lines only, upon the front-piece closing the opening. From the start given by these primitive memorials, the art of tomb-making advanced until it attained such true and beautiful execution as is found in the graveyard of the Scaligeri family at Verona; there the sarcophagi are placed inside of small gabled structures supported on exquisite angle-shafts. Nor did it stop there : we have to seek in Westminster Abbey, in St. Paul's, in some of the other cathedrals of the Old World, for the beauties — and some of the absurdities too — of a more refined, cultured, and skilful civilization.

The two special reasons for the erection of stones of any kind, over graves, are either simply to mark the resting-place of the deceased, and by an inscription to testify to the world some special virtue which those who pass by may take a lesson from; or, by a pompous monument, to certify to the veneration and esteem in which some public character or benefactor was held, and with what affection he should still be remembered. Let us see what we can find in accord with these objects. Head and foot stones are of course admissible ; a single large cross, of good design, is very appropriate at the head of a grave. Upon its arm might be cut, "Mercy, Jesu," or some short text from Scripture, — one that the person lying beneath may have been specially fond of, or one calculated to rivet itself on the mind of a passing, careless observer. The words "Requiescat in pace," if used at all, should, in my opinion, never be indicated by their initials alone : more revolting frivolity and heartless criticism have resulted from such abbreviation than the extra labor is worth. Next to the upright stones comes the single slab placed entirely over the grave. There may be some objection to this, on the score of its preventing the growth of grass, holly, ivy, or flowers ; but it has this advantage, that it gives room for a much longer inscription ; and there are many people who like to see their ideas in print, even if expressed in such a black-letter alphabet as this. These slabs may be either wholly flat and in the form of a parallelogram with inscriptions, or they may taper gradually from head to foot, and have the two sides shelving from a ridge or continuous apex along the centre. This form lends itself very readily to short mottoes or texts.

Monuments are only in place over the graves of those who have done some special good to mankind, or have been prominent in public affairs. Lives of great men should, from their tombs, remind us that we may strive, if nothing more, to emulate them ; and, over the graves of those who have done noble deeds, it is certainly not inappropriate that a grateful community should rear some token of their regard and esteem, — to point to a merely human greatness, created by energy and perseverance, so that no one need despair ; or else to show that there is a higher consummation for those who have done their duty conscientiously ; or that a bereaved family should publish the worth of him who sleeps beneath. But where these monuments are put up as a sign of the wealth of the dead or those remaining ; as a commemoration of the virtues and kindnesses of one who had no virtues, and never did a kind act,—they become absurdities and lies, and unfit for their position. If there is one place, above all others, where rich and poor should be even, it is in the graveyard; and any false ostentation and show becomes not only sickening, but utterly disgusting. It creates the feeling in others that they must try to equal, if not to excel their neighbors, in the mightiness of their funereal embellishments.

In regard to the styles of such monuments as may with propriety be erected, they are various. A refined feeling is necessary, to choose the good, and discard the bad, and to see that there is no introduction of offensive or tawdry decoration. A tall monolith four-sided or round, broken with medallions, on some sort of more or less richly decorated pedestal, is generally in keeping with any surroundings ; but columns topped out with urns, doves, Cupids, or other nonsensical figures, are abominable. A figure under a canopy, as in some of the cathedral tombs, is specially charming. Indeed, figures and carvings of any sort, if carried out as they should be, have always an elevating tendency ; and they may indicate some scene in the life of him beneath. Thus I once saw a very beautiful statue of a wounded soldier with his horse by his side, its head put down close to the half-reclining form as if in sympathy; the whole was in bronze, and very suggestive. In St. Paul's, London, in itself a monument, is a very beautiful tribute to the memory of John Howard the philanthropist. He is represented trampling on fetters, and bears in his right hand a key, and in his left a roll with the words, "Plan for the Improvement of Prisons and Hospitals." In front of the pedestal is a figure in basso-relievo, distributing food and clothing in a prison. With the exception of the principal figure being clad in Roman

costume, this is a very excellent tomb; but it is only one of many I might bring forward to illustrate what truth in the design of such monuments is.

Memorial brasses and tablets fall under the same head as tombs in regard to their decoration. The old mediæval floor-brasses were either figures, or mere inscriptions which those who would read must be at some trouble to decipher. At present we have not time to study any works of art under foot; and church tablets, in positions where they may catch the eye, are the only memorials of this kind now admissible.

Regular tombs in churches were found to be decidedly objectionable. During former years, in England, when the squire's pew often filled a good part of the best seating-space of the church, his family tomb would sometimes occupy the greater half of the chancel. No doubt it was a source of gratification to those members of the family remaining, to scan weekly this enormous outrage, and placidly reflect on the greatness and wealth of their ancestry; but other attendants at the services did not look on it in the same light. To them it was nothing more than an unsightly addition; and they could ill brook its interference with the rites of worship.

In regard to epitaphs, much might be written. If the majority of the world ever has refined taste enough to erect suitable tombstones or monuments, it goes sadly astray when it comes to placing words of any sort upon them. The simpler such inscriptions are, the better. When we visit our burial-places, and see the uncomely stones that are so generally erected, we feel tempted to cry for a reform. Be it on account of the heedless disregard of death felt by the present generation, be it on account of carelessness, or what it may, there yet stands this fact, that ten to one our mortuary adornments are only means for a display, on our part, of ourselves or our belongings. Though we may not possess the same strict eye for money-making as that widow who, when her husband was interred in Père la Chaise, had engraved on his tomb, "His business will be continued at the old stand," yet, if we can derive any benefit from our monumental memorials, so much the better. We have yet to study how to memorize our dead, for we are far from perfection; how, with due regard to taste, to put up suitable stones, — free, on the one hand, from an ostentatious vulgarity, and, on the other, from a seeming carelessness. In this study we shall have to revert to the relics of a former generation; for it is by these, culled with discrimination, that we find a true Christianity expressed. With this help on the outside, and purer, better thoughts from the inside, our funeral architecture may, some day, become what it should be. T. BUCKLER GHEQUIERE.

CORRESPONDENCE.

THE COURT-HOUSE DOME.

CHICAGO.

AT a recent conference between our City and County authorities in relation to the erection of the Court-House and City Hall, the question arose as to whether or not the proposed building should have a dome. As might be expected, our worthy rulers exhibited neither more nor less good sense than has on a hundred other occasions been displayed by similar bodies. The whole discussion was characteristic of that class of men, who, by the accident of public position, have it in their power to control questions which involve the influence of our architecture upon future generations. With but few exceptions, the suggestions made were thoughtless and flippant, displaying mainly the ignorance of those who advanced their opinions, while it was interspersed with badinage and practical jokes not worth repeating, and ill becoming a deliberative body with a really important matter to dispose of.

The majority evidently wanted a dome only because it would enable them to spend more money; while the minority did not know what to say against it.

The following may serve as an illustration of the original views advanced: —

After the architect, Mr. Egan, had explained how he had, time and again, demonstrated to the County Board that the dome which he had designed could never be seen, except from the housetops, the distant prairie, and the waters of Lake Michigan, County Commissioner McCaffrey said he supposed the county people would vote for it, so that they could see the city from their houses.

A magnificent argument in favor of the dome was delivered by County Commissioner Cleary in this wise: "I have been in favor of the dome from the commencement, and am now, and know that my constituents want a dome. Take a vote in the city and county, and you will find nine-tenths of the people want a dome. You won't see a court-house from here to California or New York, but has a dome. A court-house that will cost us that amount of money, and be without a dome, looks like a cow with one horn. [Laughter.] I am in favor of the dome, and hope this committee will favor it also; and I am glad to see this committee in session to-day, because it is one we ought to be proud of. This is the only committee I have seen for years. Why, gentlemen, committees of both City and County have been pettifogging for three years. I am glad to see that all is harmonious, and I hope this court-house will go right on." [Applause.]

But it was not harmonious on the dome question æsthetically considered.

Commissioner Burdick with considerable good sense said that the only ground he had heard advanced for building a dome, or a portion of it, between the two buildings, was, that it would simply facilitate the passage from one building to another. It seemed to him very much like building a mountain where a mole-hill would answer the purpose. If the purpose only were to form a connection between the two buildings, they could build twenty or forty passageways for what the dome would cost, even if built to the height of the building.

Commissioner Guenther was also opposed to the dome. So was Alderman Sheridan. Alderman Van Osdel (who, by the way, is also an architect) said that no court-house in New York had a dome. And thus these wise-acres went on for hours, discussing the question whether it were the right thing to build a dome which, the architect had told them, could not be seen.

In the course of the talk, the architect, Mr. Egan, offered some facts which are of value outside the circle to which they were addressed. He said that seventeen hundred piles had been driven in the earth under the dome proper. He advocated, in case the building of the dome were decided upon, the erection of masonry for the dome to the grade level. He said, also, that upon driving the piles, the average rise of the ground about them had been two feet and a half. He had taken the steam hammer and experimented on some piles driven down three weeks before. He struck the piles twenty-four blows with the hammer, and could only get one of them down three inches. The ground was practically incompressible.

THE DARIEN CANAL.

BOSTON.

IN No. 37 of the *American Architect*, mention is made of Señor Gogorza's Darien Canal scheme, *via* Cacarica River and Paya; and the statement is made that Gogorza's scheme was being prepared at the time Capt. Selfridge was at the Napipi. This is incorrect. Gogorza's Cacarica report was printed in French the year before Capt. Selfridge went to the Napipi. In point of fact, it was in possession of the Selfridge expedition to Caledone and Sassardi (1870), and was used by them in that year and afterwards. It is scarcely likely, moreover, that Capt. Selfridge based his opinion as to the feasibility or otherwise of the Gogorza route simply upon barometic observations; for his previous expeditions (in addition to the testimony of Humboldt) demonstrated the worthlessness of all such observations on the isthmus.

A canal *could* doubtless be constructed at Panama as suggested by the *Engineering News*, with a "thorough cut" and no locks, and with possibly but one artificial harbor. The elevation given, however (twenty-eight feet), is probably about one-fifth of the actual height. As a railroad would be a necessity wherever the canal was located, for carrying supplies, etc., the question is not whether a canal with locks and good harbors will be cheaper than one supplied with artificial harbors and no locks, but whether a canal with locks, *plus a railroad*, etc. In the consideration of Panama, the Chagres fever should be remembered. Further down the coast this entirely disappears. One other condition, and one scarcely known, is the fact that the Panama Railroad Company controls the right to all railroads and canals from Costa Rica (?) to Cape Tiburon, and will naturally, should the proposed canal be located within those limits, demand a high figure for its rights.

Engineers, as a class, who are acquainted with the country, express themselves very sceptical as to whether the best location has yet been found. The entire country is densely wooded, and is more or less foggy at all times. The lines that have been run have always been selected for some local reason, such as a good harbor, apparent depression, etc., when really there is no way of determining the best location except by a perfect network of lines and levels over the entire country from Costa Rica to the Atrato; and until this is done the most feasible pass *cannot* be determined.

E. W. B.

ARCHITECTURAL JOURNALISTS.

AN English correspondent comments on a remark made in a private letter as follows: —

"That you have no distinct corps of 'writing architects' is to be regretted. In England our best professional men occasionally write; and when they have aught to say that needs saying, they do not stay to balance the remuneration with the amount they could gain by professional practice in the same time. So far, we fare well. Our journalists, on the other hand, taboo all subjects deemed heavy, and few of them are sufficiently acquainted with the *technique* of the arts to distinguish a T piece from a boot-jack. Three or four of us think nothing that concerns the progress of society is outside of our province; but this involves an enormous amount of labor, apparently gratuitous, from which no pecuniary advantage can be reaped for a long time to come."

TO THE EDITOR OF THE AMERICAN ARCHITECT AND BUILDING NEWS.

DEAR SIR, — As no one has replied to the inquiry of your correspondent B. B. O., as to the significance of S. P. Q. R. on the drawing of the Church of the Advent, which appeared May 27, I may as well let you know that a friend who is too modest to write to the papers suggests that it may mean, in accordance with the modern spirit of business enterprise, "Several Pews Quite Reasonable." Yours, &c., B. O. B.

CHICAGO.

NEW BOOKS.

MR. FRYER'S book on Architectural Iron-Work [1] purports to be a practical work for architects, as well as for iron-workers and engineers, and thus promises to fill a gap that much needs filling. This promise is poorly kept. The only part of the book especially addressed to architects is an essay upon the advantages of using cast iron for the façades of buildings, preceded by twenty pages of specification, and followed, at a distance of fifty or sixty pages, by extracts from the building-law of the city of New York, and some specimens of the forms used in the New York department of buildings. The essay is of no weight; and what there is of value in the rest of this material is easily accessible in other forms.

The portion of the book intended for engineers and architects both is mainly contained between pp. 23 and 56, and between pp. 91 and 136. The name of the New Jersey Steel and Iron Company is cited at the beginning of this latter portion, in brackets, and that of the Phœnix Iron Company in parenthesis at the end. These forty-five pages are mainly occupied with tables of strength for floors, girders, beams, pillars, and purlins; copied, and not very accurately copied (though the blunders are carefully reproduced), from the advertising manuals of the companies mentioned. But there is no adequate acknowledgment of this indebtedness, nor is there any indication where one authority ends, and the other begins. In the manuals themselves, these tables appear in their true character as the dealer's estimate of his own wares. Nobody but the dealer vouches for the correctness of the principles on which they are based, or for the accuracy of the computations. The buyer is on his guard, and consults competent authorities to satisfy himself of their trustworthiness. Such an authority the writer of this book pretends to be; but a further examination of its contents utterly fails to support this pretension. The tables he gives gain nothing from his indorsement.

It is enough to instance the introductory note on p. 24, where in paraphrasing the language of the manual from which he copies, without acknowledgment, certain tables for the strength of cast-iron columns, he encourages the reader to apply just twice the load which, in accordance with the best authorities, the manual itself permits. The rules for cast-iron beams which follow are confusing and equally misleading; and in the tables given in illustration of these rules, and presumably based upon them, the sizes and dimensions in some cases conform to them, in others the beams are twice as strong as the rule requires. In treating of cast-iron arched girders with wrought-iron tension-rods, he again seems to have missed the sense of the information he undertakes to convey, and not to have apprehended the distinction between the load upon a structure, and the strain upon the members of the structure resulting from the load. The tables that follow agree quite closely with the results his rule would give. We accordingly find, to take a single instance, that for a span of eighteen feet he would expose his tie-rod to a strain of something like twenty-seven tons to the square inch of section. The New York regulations, as cited in another part of the book, allow five tons to the square inch of such rods. But this style of girder is to be condemned on its own merits, independently of this writer's treatment of it.

The most discreditable thing we have found is a senseless rule given for finding the weight of hollow cast-iron columns, in which the writer first shows by example that he does not know how to get the area of a ring, and then represents that an inaccurate factor is used "for convenience" to get an accurate result. The whole statement is perfectly unintelligible.

The rest of the book is made up of an essay on the organization of iron-works, in the midst of which occurs the first set of tables to which we have referred; of suggestions for the formation of a stock company; of a dozen pages on "casting, moulding, etc., intended more particularly for those who may have invested money in a foundery, and yet know little or nothing of the practical workings of such a place;" of descriptions, with illustrations, of certain patent contrivances; of a short paper of a general character on the labor question; and of a concluding Address to Young Men, inculcating "enthusiasm in their calling, faith in the future, intelligence in their work, endurance, and an unconquerable will." The whole is thrown together without method or arrangement, just as the various printed and manuscript matter of which it is made up may have lain together in the writer's desk. There is no division of chapters, or table of contents, though there is a tolerably full index which is called by that name.

The condemnation that books of this sort must receive falls not on the compiler, but on the publishers. An uneducated man who has collected a certain amount of material that he finds of use to himself is not to blame if he tries to secure himself a reputation for enterprise and intelligence by adding a few lucubrations of his own, the absolute value of which he is hardly in a position to estimate, and printing the whole together, with his name on the titlepage. But publishers of repute, especially publishers of professional and educational works, ought not to impose such trash upon their public. It is an absolute waste of means. The money spent on such a book not only does no good; but, being spent, it is no longer available for better things. It is indeed greatly to be desired, that publishers should consult with competent professional advisers before taking the responsibility of publishing professional works.

This condemnation applies in still greater force to the respectable firm who have allowed Messrs. Hobbs & Son's preposterous composition [1] to appear under their auspices. A book more discreditable to all concerned, from the authors to the purchasers, is seldom published in any civilized country. That it should have reached a second edition, and that most of the houses depicted in it should actually have been erected in the rural districts of Pennsylvania, shows that the Exhibition has come none too soon, and that its enlightening influence was nowhere more needed than near the birthplace of the nation. Of the designs, it is hard to say whether the ungainliness of the elevations, or the inconvenience of the plans, is the most noticeable. In their monstrous pretentiousness, they are only equalled by the text by which they are accompanied. Of an "English-Gothic residence," we are told that it is "drawn in the proportions of the Ovo order, which gives it a degree of refinement suited to the ideas of the American people." A cemetery entrance is, again, "an evolution of the Ovo law of architecture." Then comes this richness: "Professionally we must say, that for its clear proportion, quiet and unobtrusive beauty, and fitness for its purpose, we have never seen so small a piece of architecture, costing so little money, contain half its quiet, silent, reverential beauty." Another is in the "Elizabethan style, Italianized. It is presented with a view to show what amount of beauty should be visible in the piling up of a quantity of material and labor." Another "is one of those imposing buildings that are fully up to the advanced taste of the age." A fourth is "in the Italian style, Americanized. That it cannot be otherwise, will appear from the following reasons: it is not Roman, as most of its details are Greek; neither is it Athenian, for some of its windows have arched heads." In a fifth, "the musical ratios are perfectly adhered to, varied by perspective position, which pleases those beholding the structure."

"Do not imagine," says our author, "that I desire a humdrum

[1] Architectural Iron-Work: A Practical Work for Iron-Workers, Architects, and Engineers, etc. By Wm. J. Fryer. New York: John Wiley & Sons.

[1] Hobbe's Architecture: containing Designs and Ground-Plans for Villas, Cottages, and other Edifices, both Suburban and Rural; with Rules for Criticism, and an Introduction. By Isaac R. Hobbs & Son, Architects. Philadelphia: Lippincott & Co.

style. No: I desire variety, — variety of form, in quantity, in appliances of every kind to produce it. Let the lightning flash, the thunder roll, the waves heave. Let them all co-operate, and for a while be as one, until the strongest force becomes master, and leads the whole; aiding, by the murmurs of others, the positive voice of the leading spirit."

The Rules for Criticism are perhaps the best part of the book, and show some glimmerings of sense; but even here we are told that "no part should chop up the whole, unless it be worthless. There should be some master-line throughout the whole work, like the three colors, . . . and so an equal balance of three lines will produce a neutral, or as near nothing as possible." The Introduction, too, contains much that, though true, is not new; with some things that, though new, are too good to be true. For instance: "We have a law of architectural proportion, discovered ten years ago, giving our buildings, when carried out, a fulness and beauty of proportion found nowhere save among the Greek examples. I am fully convinced that the Greeks who built the Parthenon had the same law to guide them that we pursue." It is hard to believe that; and the Centennial order of architecture, "capped with century-plants in full bloom, the stock answering for a flag-pole, from which waves the star-spangled banner," does not convince us.

It may partly account for things, if we add that these designs were first published in Godey's Ladies' Book, and perhaps this statement would have sufficed without any more extended notice; but we have borne in mind the necessities of a correspondent who once begged us to establish a funny column. "Hobbs's Architecture" is the most amusing thing we have been able to find.

NOTES AND CLIPPINGS.

MONUMENT TO WILLIAM H. SEWARD. — The bronze statue of Mr. Seward, modelled by Randolph Rogers, and cast at the Royal Bronze Foundery in Munich, was lately put in place in Madison Park, N.Y. The monument represents Mr. Seward in a sitting posture. The likeness is a good one, and does credit to the sculptor. The statue, which is thirteen feet in height, rests upon a pedestal about fifteen feet high. The base of this is a large block of New-England granite, and the rest is composed of dark Italian marble.

This monument is an expression of the respect of a number of citizens of New York and other cities for the late Secretary of State, and cost twenty-five thousand dollars.

INSTITUTE OF TECHNOLOGY. — The foundations of the new building for the Massachusetts Institute of Technology, Boston, to be devoted to the departments of chemistry and mechanics, have been laid. The building will be of brick, one story high, and forty by a hundred and fifty feet. About thirty-five hundred feet of the floor-space will be devoted to a series of shops for class-teaching in the use of tools and in foundery-work. These shops will be used by the students of the department of mechanical engineering, and by the students in the department of practical mechanism, which has lately been established, and will be opened with the new year.

PEABODY MUSEUM OF ARCHÆOLOGY. — Work on the east wing of the Peabody Museum of Archæology, Cambridge, Mass., is being pushed rapidly forward. This building, which is to be of brick, is situated about two hundred feet south of the Museum of Comparative Zoölogy, and will much resemble it in style, except the roof, which will be a brick Mansard instead of slate. The wing will be about eighty-seven feet long from north to south, and forty-four feet wide, with a projection of four feet by twenty-four feet on the east side, and covering 3,924 square feet of land. The building will have a basement eleven feet high from top of basement floor to the top of first floor, and two stories, each twenty-two feet and two inches high, in the halls and exhibition-rooms of which will be galleries seven feet wide.

A NEW CHURCH. — The new Episcopal Church of St. Thomas Parish, Hanover, N.H., is completed except the tower, and will be consecrated Tuesday, the 19th inst.

A NEW GERMAN CLUB-HOUSE. — The new building of the Brooklyn Sängerbund will be of brick, two stories in height, and will contain a restaurant, bowling-alley, and ball-room. The latter will be fitted with a stage, and will also be used for concerts. The estimated cost, including the land and furnishing, is fifty thousand dollars.

A RECOVERED PICTURE. — A picture thought to be the famous painting of Christ entering Jerusalem, by Haydon, which was supposed to have been burned years ago in Philadelphia, has lately been found on the walls of St. Peter's Cathedral, Cincinnati.

GROWTH OF NEW YORK. — The New York *Commercial Advertiser* gives the following table of the growth of that city during the last six years: —

Years.	New Buildings.	Altered Buildings.	Estimated Cost. New Buildings.	Estimated Cost. Altered Buildings.
1870	2,635	1,362	$38,646,423	$3,764,624
1871	2,518	1,373	37,580,016	4,351,981
1872	1,281	890	21,944,330	2,788,379
1873	1,311	1,139	22,276,645	3,496,995
1874	1,388	1,429	16,786,077	3,532,147
1875	1,406	1,258	18,236,770	3,200,438

SCAFFOLD ACCIDENTS. — While painting the ceiling of the Tivoli Theatre, New York, on the 2d inst., three men were injured, two fatally so, by the giving way of their scaffolding. On the 4th inst., a scaffolding at the new grain-elevator of the Hudson River Railroad Company gave way, causing the death of one workman, and the maiming of the three others who were upon it. The coroner's jury found that those superintending the building of the scaffold were culpably careless in the choice of timber.

FALL OF THE FLOOR OF A CONCERT-HALL. — The floor of Holbrook & Moy's new hall at Clam Lake, Mich., gave way on the evening of Sept. 6. The whole audience was precipitated a distance of ten feet to the ground-floor. There were two hundred people in the hall, of whom only three or four were badly injured.

A BUILDING-ACCIDENT. — As workmen were hoisting a heavy block of stone, to be placed on the Emery Arcade, on Vine Street, Cincinnati, on the 8th inst., a large section-stone already in place was knocked off by it, breaking down the stone veranda on the second story, and seriously injuring two laborers. The accident will necessitate the removal of a large part of the stone front, at a loss of several thousand dollars.

THE CONGRESS OF INVENTORS. — The Congress of Inventors has adopted resolutions recommending changes and amendments in the laws relating to patents. Among the more important recommendations is the following: That the Patent-Office shall be separate from the Interior Department, and organized on a basis similar to that of the Agricultural Bureau; that the officials connected with the department shall hold office for life, during good behavior and competency, and the affairs of the office shall be divested of political influences; that a standard of qualifications for persons desiring to practise as patent-solicitors shall be established; that the transfer of rights, including licenses, shall be recorded in the Patent-Office within sixty days of the execution; and that the owners of patents shall be preserved in their right of recovery for infringements occurring prior to a re-issue.

THE ENGLISH DILAPIDATION ACT. — The clergy of the diocese of Lincoln pay, every five years, over $150,000 for ascertaining the state of repair of the buildings in the diocese.

VANDALISM. — The *Chester Chronicle* says, "A few days ago, Dean Howson was lecturing in the choir of Chester Cathedral; and, on leaving the choir for the nave, the dean gave strict orders for the choir to be cleared, informing his hearers, that, a few days previously, he had discovered a 'gentleman' in the act of cutting off the wing of an angel from some carved work."

RUSSIAN HOUSES. — Every dwelling-house in St. Petersburg has to be covered with stucco; and, as the climate affects it seriously, it has generally to be repaired each spring.

A MONOLITHIC AQUEDUCT. — An exchange states that the aqueduct from La Vanne to Paris, a hundred and thirty-five miles long, is made almost wholly of *béton-coignet*. The Fontainebleau section of thirty-seven miles, over dry quicksand, is composed of a series of arches, some of them fifty feet high. Eight or ten bridges, of seventy-five or ninety feet span, are also of *béton*. For foundation and gravel walls the composition is two and a half of sand, two and a half of gravel, to one of hydraulic lime, with one-quarter of Portland cement. For pillars, abutments, etc., four of sand to one of hydraulic lime. For the other portions, four of sand to one of hydraulic lime, with one-quarter to one-half of Portland cement.

A GOOD DEODORIZER. — The London *Lancet* draws attention to the value of chloride of lead as a deodorizer; and we ourselves can vouch for its accomplishing some of the things enumerated. The manner of its use is to dissolve half a drachm of nitrate of lead in a pint of boiling water, and pour this solution into a bucket of water in which two drachms of sodic chloride (common salt) have been dissolved. After chemical action has taken place, the clear supernatant liquid is an odorless saturated solution of chloride of lead. If this solution be thrown into a sink, vault, or water-closet, from time to time, the disagreeable odors will be destroyed in a short time. A ship's bilge was completely disinfected in this way by simply dissolving half an ounce of nitrate of lead in boiling water, and pouring it into the bilge-water, which itself supplied the necessary sodic chloride. Cloths wet with this solution, and hung in fever and accident wards, are said to keep the atmosphere sweet and healthy.

The following letter suggests the stuff of which it is common to think architects may be made ready to hand: —

DETROIT.

Mr. —— Cincinnati, Ohio.

DEAR SIR

permit me to address you altho been personally unknown — and to offer my services as Draughtsman in your office — I beg to say I am Now 23 years of age and have spent 5 years to Carpenter and Joiner trade — for the past 18 months I have been employed in an Architect office in this City.

My wages from the 1st of this mounth was to $10 per week but is delayed in consiquence of Not having much work — I am tharefore at liberty to leave.

for some years I have had a Desire to live in Cincinnati — and hope Circumstances will permit you to consider this matter favorable — if Not at present; perhaps in some future time.

if Necessasary I shall feel happy to furnish satisfactory testimoneals as to my charactor etc.

awating the favor of your Reply I remain Dear sir your obe servant.

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